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February 9, 2004

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Jim Barber, Section Chief Solid Waste Section, NCDENR 1646 Mail Service Center Raleigh, NC 27699

RE: Dunn Erwin Landfill, Harnett County, NC C&D Cell Permit Extension Request Permit # 43-02 Fac/Perm/Co ID # Date Doc ID#
43-62 / DIN 25480

Mr. Barber:

As you are aware, Harnett County currently operates a C&D cell that is currently located on top of a closed MSW cell. The current permit (# 43-02) expired on January 1, 2004. We are requesting an extension of this permit at this time.

Per your request during the meeting with C. T. Clayton, Sr., P.E. in August 2003, we reviewed the records for the closure of the unlined solid waste landfill that is below the active C&D cell, and found that the 1997 cap installed had a minimum of 18-inches of soil with an average effective permeability of  $1 \times 10^{-5}$  cm/s. However, in some places the cap was constructed to a depth of 30-inches thick to compensate for permeability results that did not meet the  $1 \times 10^{-5}$  cm/s requirement.

Based on this finding and the proposed draft C&D Landfill Rules (specifically section .0543), the County is currently investigating options with C. T. Clayton to determine whether a synthetic cap or a compacted low permeability soil cap will be the best alternative for the closure of the C&D cell in the future. A letter addressing the closure plan for the C&D cell will follow in the near future.

Currently, based on a recent topographic survey completed in October 2003 of the C&D cell and the average waste inflow rates for the previous three years, enough air space is available to allow waste to be deposited in the cell until approximately August 2006.

Should you have questions concerning this request, please call me directly or C. T. Clayton at (252) 671-6979.

Sincerely,

Jerry Blanchard, Director

Harnett County Solid Waste Management

Attachment

cc: file, C. T. Clayton, Sr., P. E.

Dunn Erwin Landfill
C+O Cell

By: CTC Jr

CTC PN \$ 3023

Estimated life Left

- ) Givens Assumptions:
  - a) 1000 lbs of C+D waste = laya fill
  - b) Daily Cover Sail Ratio: 8:1 = .125
  - c) Topo Info (10/2003): 118,000 cy of air space available (take into account a 2-ft viosure cap)
  - d) Average waste intake for 2001 to 2003
    = 13,400 tons/year

    X1.15 (growth factor)
    = 17,710 ton/year =7 18,000 tons/year
- 2) Total Volume Used per year:

  18,000 tons = 56,000,000 lbs

  36,000,000 lbs = 36,000 ruyds of C+D and addity cover

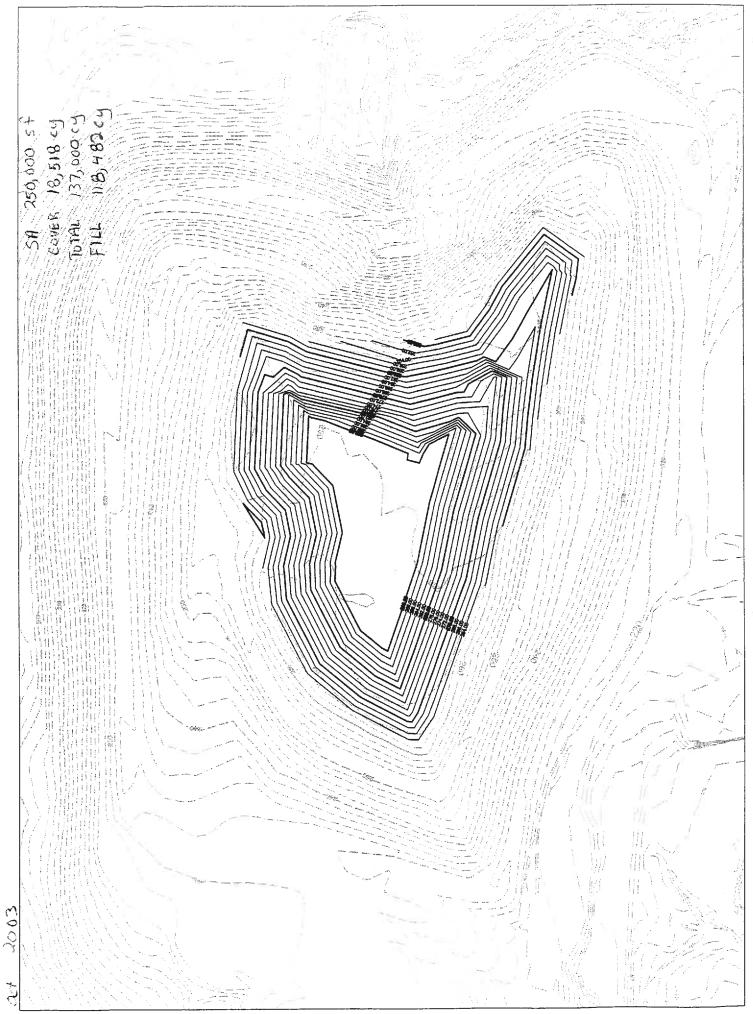
Total Volume/yr = 40,500 coyds

3) Time left before design grade (minus 2-ft cap) is met.

Total Volume 12ft: 118,000

Time Left: 118,000 /40:500 40%

= 2,9 gr = 34,8 morths



1 = 150'